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# ANALYSIS

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## THE LIMITATIONS OF ANALYTICAL PHILOSOPHY

By W. B. GALLIE

WHAT does a piece of thinking, or the fact of believing something, or the understanding of a word or a mathematical formula, consist in? What is the analysis of the concepts of, for instance, mind, purpose, cause, force, cardinal number, logical necessity? What are the rules, or what the necessary and sufficient conditions, of the proper use of this or that verbal, or other symbolic expression? These are some of the forms in which we commonly find philosophical questions put to-day, especially by those who claim a paramount, if not an exclusive, importance for analytical philosophy; and the three sentences into which I have grouped these questions suggest three important divisions in recent descriptions of analytical philosophy or at least in the terminologies in which we find analytical philosophy described.

(1) Some analytical philosophers tell us that their job is to discover what certain highly general kinds of thing, characteristic, activity and so on *consist in*. (2) Others tell us that their job is to analyse the peculiar *modus operandi* of certain important concepts, and in particular of such concepts as are easily misapplied owing to some kind of logical confusion. (3) Yet other analytical philosophers tell us that their concern is with the proper use of certain (usually verbal) expressions; and here again the need of analysis arises, we are told, from the kind of confusion that is caused by imperfect and therefore misleading analogies between certain uses (or, as it is sometimes expressed, between certain 'consequences') of the expression in question and those of other expressions.

It is, I think, often assumed that these three accounts are, at least in a great many contexts, equivalent; that is to say, for instance, that very nearly the same, if not precisely the same, considerations would lead us to accept or reject such analyses as might be offered to the three questions:

- (1) What does a piece of thinking consist in?
- (2) What is the analysis of the concept Thinking.
- (3) How can the proper use of the word 'thinking' (in a given context), be determined? And I think that this assumption could usefully be expressed by saying that, however we choose to describe the *function* of analytical philosophy, this function is always to be discharged by the analytical *method*; a method which, by many important contemporary thinkers, is held to be the only proper method, of philosophy.

What, then, is the analytical method in philosophy? By what method do philosophers come to see, or claim to see, the answers to the kinds of question I have illustrated in the opening sentences of this paper? I know of no really adequate answer to this question; but I think that most analytical philosophers, including those who prefer my terminologies (1) and (2), would admit that their procedure is fairly adequately described by the following account that makes use of my terminology (3). I suggest, then, that to use the analytical method in philosophy means to try to establish the necessary and sufficient conditions of the proper use of any given expression or group of expressions simply by examining the necessary consequences of that expression (or group of expressions) as currently used<sup>1</sup>: To this it should, I think be added that such examination of consequences will usually include comparison and contrast with certain characteristic consequences of other expressions, and will sometimes involve the recognition of hitherto unrecognised different uses of the expression that is analysed.

Now that this or something like it is a method which some philosophers and logicians have used in dealing with very important questions, chiefly in logic and the philosophy of mathematics and the philosophy of physics, few people will dispute: though whether it is the only method these philosophers have used in, say, attempting to discover a single set of logical axioms from which 'all mathematics follow' and in attempting to clarify and render 'more economical' the principal definitions of physics, is, of course, another question, and one which, I must confess, I lack the competence to discuss. One thing, however, does seem perfectly clear to me in this connection; namely, that applications of the analytical method, in the kinds of case just referred to, presuppose that at least some *sufficient* condition of the proper use of any expression the *definitive* conditions of whose proper use is to be sought for by the analytical method, is already known or can readily be discovered and stated. For instance, a sufficient condition of correctly applying the principle of contradiction is provided, though not formally stated, by the capacity to speak English correctly, and in terms of this capacity a sufficient condition of the proper use of the principle can easily be stated. Again a sufficient condition of correctly applying most of the principles of traditional formal logic, so long as these are conceived as quasi-algebraic expressions and

<sup>1</sup> In the case of "logically incomplete expressions" this can be done, I imagine, only by comparing and contrasting certain characteristic consequences of the different *complete* expressions (propositions) in which an incomplete expression is, *ex hypothesi* correctly, used.

operations, is provided, and some would say is stated, in the primitive symbols and operations of *e.g.* the Boolean calculus; and *this* sufficient condition of the proper application of logical principles (conceived subject to the above proviso) is a necessary pre-requisite of asking, as *e.g.* Russell did, whether the definitions and axioms of *some* calculus might not provide the *definitive* conditions of traditional logical principles, and of other formal (*i.e.* mathematical) principles besides. Again, a sufficient condition of the proper (*i.e.* consistent and experimentally efficient) use of any of the key terms of physics is provided by the contexts—descriptions of experimental results—in which they occur in the presentations of physics at any stage of its development. (The many different ‘definitions’ of *e.g.* *mass* found in different text-books of mechanics are, in fact, statements to the effect that the possession by any body of such and such experimental properties is a sufficient condition of ascribing a certain mass to that body.) And in this connection, it is worth adding that no one could *understand* the proper use of any abstract scientific term, such as *mass*, unless he knew at least some sufficient condition of the proper use of a vast number of everyday expressions standing for physical objects, properties and operations; this knowledge resting, in the last resort, on the capacity to recognise or produce instances of such familiar objects, properties and operations.

I think it must be agreed, then, that the function of analytical philosophy has been most effectively discharged in connection with expressions of whose proper use *some* sufficient conditions are already known. And I want now to show that where this condition is not realised—and this means in the case of an immense number of familiar everyday expressions—the function of analytical philosophy cannot be discharged; *i.e.* cannot be discharged *by the analytical method*. In arguing to this effect, I am not suggesting that the analytical method cannot be used, and used profitably, when the above condition is not realised. To urge this, would, I think, be absurd in view of two of the most important recent philosophical discoveries made by means of (though not solely by means of) the analytical method. I refer to the diagnosis of ‘systematically ambiguous’ and of ‘family resemblance’ words. Evidently, knowledge of a sufficient condition of the proper use of any expression of either of these two kinds is quite impossible if the theory of logical types and the theory of family resemblance words are true. For an essential part of each of these theories is that there is no single proper use of any expression of either of these two kinds.

On the other hand, I think it is obvious that neither of these theories is the outcome *solely* of applications of the analytical method. By this method philosophers have certainly come to see important differences in certain uses, that are liable to be ignored; but the theories in question are not simply résumés of the discoveries of these differences; they are also in the nature of 'simplifying hypotheses' or 'explanations', in as much as they show or at least suggest how, in the case of any systematically ambiguous or family-resemblance word, these differences *are related*.

I mention these two cases, obscure and disputable though they be, because I think they illustrate not just the most obvious limitation of the analytical method but the way we should regard these limitations. They are not something to be 'charged against' the analytical method; rather they provide perhaps the best avenue for insight into the necessity and nature of other philosophical methods—methods which are far less easily described and (I would add) usually far less effectively applied.

We can now turn to what I referred to above as the immense number of familiar everyday expressions with regard to which we do not know, and cannot by any known means readily discover, the sufficient conditions of their proper use. I do not know how to define this class of expression, but I think its range can be adequately indicated as follows. It excludes, in the first place, all expressions that can properly be said to belong to 'a well-developed science', since in the case of any such expression we know a sufficient condition of its proper use either because it is embraced within a deductive system or because of its consistent use in a number of closely related experimental contexts. And, for reasons already suggested, a vast number of familiar everyday expressions, those standing for familiar physical objects, properties and operations, are also excluded. On the other hand, the class I am now concerned with includes all or almost all those words that refer, in some sense of 'refer', exclusively to 'mental facts', or, if it be preferred, to 'mental life'. It also includes a great many expressions, including some normative ones, that apply exclusively to certain parts or aspects of 'mental life'. And it includes a great many of the expressions by which we refer to any other processes, not necessarily or not wholly 'mental', that are not amenable to scientific treatment in the way in which most (though by no means all) processes of physical change are.

From within this wide class of expressions, with regard to every member of which I claim that we do not know the suffi-



cient conditions of its correct use, I propose to select for attention one group, viz. such 'mental verbs' as 'think', 'understand', 'believe', 'know', 'choose', 'desire', etc.

Let us begin by asking: how *could* we know the sufficient conditions of the correct use of such words? So far as I can see we could reasonably expect to know this only if the logical status of mental verbs were *either* (a) of the same sort as that possessed by those logical expressions the sufficient, and perhaps also the necessary, conditions of whose proper uses are provided in the axioms that define the system they belong to; or were (b) of the same sort as that of all those expressions the sufficient conditions of whose proper use can be at least indicated by producing examples of the kinds of thing or operation they stand for. Now that the logical status of mental verbs is not of the first kind, everyone will surely agree. Mental verbs are, emphatically, *not* elements in a system whose structure can be deductively displayed; and because of this their consequences are not, so to say, collected ready to hand for exploration, exact comparison and contrast; and again, because of this the phrase 'the sum of the consequences' of a given mental verb has, I think, no definite meaning. (How important these facts are, and how they affect the actual procedure of analytical philosophers we shall see in a moment). Secondly, I think it is easily shown that the logical status of mental verbs is in no way comparable to that of expressions standing for familiar physical objects and operations. Evidently, mental words don't stand directly for any such objects or they wouldn't *be* mental verbs. It is, of course, often maintained that in their logically simplest sense, mental verbs stand for certain simple, familiar introspectible experiences which accompany some of the occasions of their proper use, i.e. some occasions on which they are used in the first person. But, as recent discussions of this question amply show, there is no agreement among competent philosophers that experiences of the kind just referred to provide a sufficient condition of the proper use of mental verbs. The case against this view has been argued on three quite independent grounds: (a) that since at least *part* of the meaning of any mental verb is something virtual or potential, as opposed to actual, the sufficient condition of *this* part of their meaning cannot be known directly, e.g. by introspection; (b) that even if certain introspectible experiences could provide the required sufficient conditions when a mental verb is used in the first person, these conditions would not suffice to establish the propriety of the verb's uses in the second and third persons;

(c) there is some impressive experimental evidence to the effect that what introspection (i.e. the introspection of *different people*) reveals in relation to the use of mental verbs is something so vague and so variable (from person to person) that it could not possibly provide the required condition. And I must say that I find these three arguments, taken conjointly, conclusive against the view that a sufficient condition of the correct use of any mental verb can be provided directly by introspection.

But, it may be objected, there must, in that case, be some other way of knowing the sufficient conditions of the proper use of mental verbs; otherwise how could we use them effectively and consistently in everyday discourse? This objection is, think, easily answered by pointing out that there are lots of things we know how to do properly with words without knowing any of the sufficient conditions of our so doing them. It is thus, for instance, that ordinary decent people know how to converse courteously, that good poets now know how to produce good poems, and so on. Similarly, it is one thing to know how to apply a given mental verb correctly; quite another thing to know the rules or conditions of its proper use.

But yet another objection may be raised. The matter, it may be said, is much simpler than the above arguments suggest. For surely we know a sufficient condition of the proper use of any expression, and if we do not explicitly state this condition, we are, nevertheless, in a position to do so, whenever we can provide a translation of it, i.e. another expression that is its logical equivalent. And surely, it may be urged, we *are* in a position to do this with most, if not all, mental verbs. I have two answers to this objection. First, I much doubt whether we ever know that two mental verbs (or any mental verb and its alleged definition or analysis) are in fact, equivalent: (I would go so far as to urge this with regard to apparently 'direct' translations from one European language to another<sup>1</sup>). Secondly, what general conditions must obtain if we are to know that any two expressions you please are strictly equivalent? Surely to know this implies that we know the *definitive* conditions of the proper use of both expressions; consequently, the objection *presupposes* the kind of knowledge the existence of which the facts it cites (or alleges) are intended to prove.

I am now going to take it as established that we do not know, or are not in a position to state, the sufficient conditions of the proper use of any mental verb; and I want to show that this

<sup>1</sup> My main ground for urging this is made plain on p. 41 below, when I argue that we are not in a position to say, with regard to any mental verb, whether or not it is *ambiguous*.



fact makes it impossible for the function of analytical philosophy, with regard to mental words, to be discharged by the analytical method. But before proceeding to this I must emphasise one point. Nothing that I have said about *sufficient conditions* precludes the possibility of our knowing a great deal about the *necessary conditions* (i.e. necessary consequences) of mental verbs as currently used. Indeed, if this were not so, no discussion of them—not even the most fruitless discussion—would be possible. But, on the other hand, it must be recalled that the consequences of our use of any mental verb are not collected in an orderly system (mental verbs not being elements in a deductive system) and that the phrase ‘sum of the consequences’ of any mental verb appears to have no definite meaning. And this fact, I think, fully explains the actual procedure of analytical philosophers when they attempt to analyze mental verbs or what they stand for. Inevitably they select *some* of the consequences of a given mental verb and (shall we say in the *hope* that these constitute a ‘fair sample?’) proceed to equate certain of them with the sufficient, or more commonly with the definitive, conditions of the proper use of the verb in question. If anyone doubts that this is their procedure let him recall the many analyses of Belief, Thinking, Meaning, Choice, etc., that have been propounded in recent years; and then let him recall first the labels that are dispassionately attached to these analyses—e.g. Pragmatic, Positivist, Behaviourist, Imagist, Verbalist, Intuitionist, A Priorist, etc., and then the epithets that are commonly attached to these analyses by their critics—e.g. ‘crudely naturalistic or causal’, ‘naively empirical’, ‘fantastically over-intellectualised’, etc. Lastly, let him ask, in the light of the foregoing arguments of this paper, how anything more could be expected from applications of the analytical method to our use of mental verbs than a series of arbitrary selections, inevitably arbitrary selections, from the endless (because not systematically ordered) consequences of our uses of these words in ordinary discourse.<sup>1</sup>

This argument is, I think, quite sufficient for my present purpose: viz. to show that where certain logical conditions are not realised, as they are not in the case of mental verbs, applica-

<sup>1</sup> An exception, which serves, however, only to prove my rule, is provided by several (I think not all) of the analyses of mental verbs (or what those words stand for) that have been suggested by G. E. Moore. Moore, with his self-critical caution, usually confesses that any analysis he can think of provides only *part* of the meaning of the expression (or concept) to be analyzed. In other words, Moore has often all but seen the impossibility of attaining the analysis of the expressions he is concerned with *by the analytical method alone*; but he retains the belief that it *could* be attained—that if only he were abler he would do adequately what other more daring or slap-dash thinkers claim to have done, and have only failed to do (Moore seems to think) through lack of skill and care.

tions of the analytical method cannot possibly discharge the function commonly assigned to it by analytical philosophers. But I think it will be useful to mention here one other consequence of my argument which helps to bring out in more positive fashion the peculiar logical status of at least a great many mental verbs, and thus to suggest what is, in my opinion, the most urgent question which mental verbs raise for philosophy.

What I have written above about the logical status of mental verbs could be condensed by saying that they are *vague*, in one strictly specificable sense of that word. Ordinarily, we say that a word is vague when we possess no means whatever of deciding how it will be used, or what its consequences will be if it is used, in certain contexts. In this sense, I doubt if any mental verbs are vague; I think we generally know, with regard to any mental verb and any context in which (we believe) it can properly be used, at least what most of its immediate or most obvious consequences will be if it used in that context. On the other hand, since we possess no *general* criterion of the proper use of any mental verb, we are unable to tell whether any such verb, as used in the vast unordered variety of its possible contexts, is or is not ambiguous: and in this sense, I would say that all mental verbs are vague. For example, in certain contexts the practical consequences of *believing* something are emphasised; in others no practical consequences whatever seem to be implied. The former contexts naturally suggest a Pragmatist, perhaps even a Behaviourist, analysis; the latter a more Intellectualist analysis. Possibly, in view of this, the verb 'believe' is ambiguous. But we are not in a position to assert this confidently. The differences which different—and rival—analyses bring out may be, in old-fashioned parlance, 'accidental' to belief; they may be due to 'non-belief' factors in different contexts in which the verb 'believe' is properly used. In other words, there may be a hard central core of meaning common to all proper uses of the word 'believe'; but we just can't tell.

There is really nothing strange about this situation; it seems strange only when we make the mistake, which I would attribute to most analytical philosophers, of taking certain limited classes of expressions—those the sufficient conditions of whose proper use we know or can readily ascertain—as *standard* expressions. In fact, just this kind of situation has frequently arisen in the history of the experimental sciences, and may well arise in future with regard to those sciences which, at their present stages of development, admit of a quasi-deductive

presentation.<sup>1</sup> And it seems to me that, given this situation, the most urgent question which mental verbs present to philosophy is: how can we discover, or decide, whether any given mental verb is or is not ambiguous?

To bring out the importance of this question for different branches of philosophy—the philosophy of mind, political and social philosophy, and, I would add, ethics and aesthetics—or to suggest how other philosophical methods (used in conjunction with the analytical method) can be employed to solve it, is impossible within the limits of a short paper. I will mention only that among these other methods are, pretty evidently, the framing of simplifying hypotheses as to the actual range of reference of any mental verb as currently used, and the introduction (in case some mental verbs, in some of their uses, appear to be vague in the ordinary, ‘hopeless’, sense of that word) of altogether new systems of expressions, the sufficient conditions of whose proper use can be easily described. Now I think it is pretty evident that successful application of these methods to what I have called the most urgent question regarding mental verbs requires that they be used in conjunction with the analytical method. Hence I would be prepared to argue that recognition of the limitations of the analytical method is necessary if we are to see how fruitfully it can be employed in connection with problems which, when it is used alone, it is evidently incapable of solving.

<sup>1</sup> Consider, for instance, the question that faced chemists in the early nineteenth century: do the elements continue to exist, in the sense of actually retaining at least *some* of their defining properties, when they are absorbed in different compounds? Philosophically, minded chemists, e.g. Ostwald, pointed out that there was (then) no adequate reason for believing this. But, luckily, most chemists persisted in this belief, which, with certain modifications, has been progressively (of course indirectly) verified up to the present day.

## NON-RESPONSIBLE MORALITY

By G. C. STEAD

IN ANALYSIS for April 1948, Mr. A. M. MacIver put forward the following theses :

- (1). Animals may have wrong done to them.
- (2). They can also do wrong, be good or bad, etc., in a genuinely moral sense.
- (3). There are genuine moral judgements which do not impute responsibility to their objects ; responsibility is not a condition of moral action.

The logical pattern seems to be : (1), if true, supports (2), which entails (3). And (3) is an important and unusual conclusion ; it is "contrary to the whole tradition of moral philosophy" ; so it is worth while to consider any argument which appears to commend it.

Let us begin with the proposition (p) : "It is always wrong to hurt even the most insignificant creature". Obviously this raises a difficulty : it is generally agreed that we are justified in destroying pests, and are not bound to take elaborate precautions, as the Jains do, to avoid hurting the smallest living beings. So in order to make his case, Mr. MacIver has to say :

"Little wrongs have to be done in order that greater wrongs may be avoided".

But can we accept this formula ? Let us suppose a case where only two courses of action are possible, A and B, and I must do one or the other. We shall say : "A is a little wrong, B is a greater wrong, therefore I ought to do A". Now this statement is tantamount to the following : "It is rather wrong to do A, though more so to do B". And "it is rather wrong to do A" implies "I ought not to do A",—which we have just denied.

The obvious reply is to say that "it is rather wrong to do A" does not necessarily imply "I ought not to do it" ; it really means "I ought not to do A *unless* the only alternative is a worse wrong". Or : "I have a *prima facie* obligation not to do A". In this way the contradiction may be avoided ; and we are now in a position to justify such statements as this : "There are acts which are in themselves wrong which I am nevertheless entitled to do." The practical significance of this is obvious.

But I believe this reply is made possible only by a further ambiguity, which I will try to expose. It concerns the expressions 'to do A' and 'an act'. Suppose somebody asks me for an example of a wrongful act. I might reply, "It would be a

wrongful act to beat my dog". He now says, "But are you ever entitled to do it?" In this case I can answer, "Yes"; I can do so because the phrase 'to beat my dog', although it is quite correctly given as an example of 'an act', denotes a whole class of actions; and in any one of these actions there are always other factors involved besides the single physical fact described. In view of these other factors I could make my answer more precise; and if I did so, it would run:

"It is generally wrong to beat my dog, but I may be right to do so in certain circumstances": or alternatively,

"I have always a *prima facie* obligation not to beat my dog, but this *prima facie* obligation may be overruled".

In either case, the misleading suggestion that I am sometimes entitled to do what is wrong completely disappears.

On the other hand, if I were once again asked for an example of a wrongful action, I might reply by actually striking the dog itself, and saying, "That was a wrongful act". Now so long as the word 'act' is used in this purely instantial sense, referring simply to one particular act, we can never assert both that this act was wrong, and that I was entitled to do it. If I was entitled to do it, then that particular act was not wrong; and if it was wrong, then I was not entitled to do it.

Thus the formula "little wrongs have to be done in order that greater wrongs may be avoided" involves a confusion. The confusion depends partly on the ambiguity of the word 'wrong', and partly on that of phrases like 'an act', 'a wrongful act' and so on, which may refer either to single actions, or to whole classes of actions.

In this case we can no longer defend the original proposition (*p.*) But we might try to build an argument on the much smaller number of cases where there are no conflicting obligations; i.e. cases of wanton injury. We should say: (*q*) "Other obligations being equal, it is always wrong to hurt even the most insignificant creature". And this may well be true. But to reach the original thesis (1), ("Animals may have wrong done to them"), we need some such step as the following:

"If it is wrong of me to hurt X, then X has wrong done to it".

What is the objection to this argument? Surely it betrays itself by proving too much. For it need not only apply to living creatures, but to anything that possesses some value. It is wrong of me to deface a picture or a landscape. But dare we conclude:

"Therefore the picture is wronged, and therefore it has rights which are infringed"?

Obviously if we did use such a phrase, we should not take it literally. The picture is not a moral personality. The case is rather that we are moral personalities, and the picture is an object which we rightly value.

Let us state our conclusion on the thesis, "Animals may have wrong done to them":

Either it is a truism: it simply means, "animals may suffer injury, and it may be wrong to cause that injury":

Or we have simply assumed that animals have moral personality, through a confusion of language.

But can animals themselves do wrong? And if so, in what sense? Can there be real moral condemnation of animals?

Admittedly we often use the language of moral condemnation, for instance in the case of domestic animals: we talk about a dog or cat being 'naughty', and 'punish' them when they are so. But, as Bradley pointed out, we need not press these terms; and if we do not really blame the animal, then what we call punishment is, properly speaking, only correction or training.

But Mr. MacIver makes the most interesting suggestion that we should draw a distinction between moral condemnation and blame *sensu proprio*. The mother of a human family who is lacking in natural affection for her children will be rightly blamed if she neglects them. We admit that her temperamental disability made it more difficult for her to care for them; nevertheless if she could have overcome it, she may be blamed for not doing so. But we cannot blame her for possessing that particular temperament itself. What then is the appropriate attitude to adopt? Mr. MacIver holds that it may be 'morally condemned' though not 'blamed'. And the same will hold good for animals—e.g. for the cat who neglects her kittens.

I should prefer to modify this proposal for 'two levels of moral judgement', and inquire rather more generally,

What is the most appropriate attitude to adopt towards

(a) The temperamental failings of children?

(b) Faults of temperament in adults?

(c) Animal behaviour, so far as it exhibits obvious analogies to (a) or (b)? (For in other cases the complexities of animal social life often make judgement very difficult; one of the pleasing features of Mr. MacIver's paper is that it avoids this difficulty.)

(1). We cannot properly blame them. For blame implies responsibility. And one of the peculiar features of blame is the feeling that the person concerned ought to share our feelings—in which case he must be capable of reflecting on his actions. If we ever were right in actually blaming a dog, it would be



because, as we say, "It knows it has done wrong"; it displays something which looks like self-condemnation.

In any case, below a certain level the notion of blame ceases to apply. There is a real discontinuity. It is not that the lower animals deserve only a mild degree of blame. They are not to be blamed at all.

(2). Then do *any* moral notions apply to them? We could adopt the view of Aquinas and Descartes, and regard animals and young children as simply on a par with machines. In this case we can still describe their behaviour as right or wrong, good or bad, but in a wholly non-moral sense. A clock 'goes wrong' when it strikes 13, and an animal could 'go wrong' in much the same way. (Of course there would be genuine *moral* rights and wrongs in *our* way of treating them, just as in the case of the picture).

I cannot myself accept any such a purely discontinuous picture; I do not see any reason for adopting a merely mechanical attitude towards the virtues and faults of children, apart from the argument that there can be no truly moral behaviour until the 'age of reason' begins. Of course in the case of children we have to allow for the fact that they *will* grow into responsible adults, and that their character then will partly depend on our treatment of them now. But my treatment of children is not wholly governed by this expectation; if I knew that a child would die in a year's time, I should if anything be more concerned about its character rather than less so. In any case, moral personality is something that gradually emerges; it is clear that we do change our attitude to children as they grow up, but not suddenly at any single stage.

(3). In asking "What is the appropriate attitude to adopt?" we are really asking, "What would be the attitude of a good man of mature judgement?"—for no doubt one can be good without being wholly mature, and mature without being good. As our moral consciousness develops, it increases in range; starting from a very simple 'primitive antagonism' to any action which is unusual or dangerous, without any consideration of motives, and ultimately developing into a whole range of more complex attitudes, appropriately adjusted to their objects. (For instance, the old precept that we should hate the sin but love the sinner obviously presupposes a considerable power of abstraction). We shall thus need many levels of judgement, not only two. On the other hand, if we try to extend our moral judgements to the actions of non-responsible beings, it seems to me that they must lose some of their distinctively moral charac-

ter: they must become far less distinguishable from aesthetic judgements; and perhaps the best way of bringing out this convergence is to borrow the language of aesthetics for use in such cases. The actions of non-responsible beings exhibit a certain grace or else deformity of character; the former we approve and admire; we deplore the latter, but we do not exactly condemn it.

This suggested language of nobility and deformity will not apply especially well to the actions of slaves or enslaved peoples. But I think their case is not really very like that of animals and children. Moral irresponsibility means that one is incapable of moral decision. Social irresponsibility means that one has no opportunity of exercising it. In time, of course, the latter may lead to the former; but that is another story.

But our suggested language will apply rather well to the case of impulsive actions. I have long been doubtful about the way in which they have been treated in the traditional moral theology. What of the man who without a moment's thought dives overboard to effect a rescue? Moral theology, preoccupied with the notion of responsibility, tends to disown the problem. "A moral or human action must be done with deliberation and consent . . . only those actions which proceed from full deliberation and to which the will has fully consented are wholly human, moral and imputable."<sup>1</sup>

But surely such actions are not merely good because they would have commended themselves to deliberate judgement: it is precisely their impulsive character that gives them their peculiar attractiveness. Perhaps there is a kind of nobility that lies not only below, but also beyond, the territories of moral philosophy.

<sup>1</sup> R. C. Mortimer: *Elements of Moral Theology*, p. 47.

ARGUMENT *A FORTIORI*

By ARTHUR N. PRIOR

IT is nowadays widely agreed that the *a fortiori* argument, from "A is greater than B, and B is greater than C" to "A is greater than C", and similar arguments based on the transitivity of comparative adjectives, cannot be expressed syllogistically. Most attempts so to express it have treated the argument as enthymematic, and the alleged suppressed premiss which they make explicit (e.g. "Whatever is greater than a greater than C is greater than C") turns out to be simply a way of saying "*A fortiori* arguments are valid". But it seems to me possible to effect the required reduction without inserting any new premiss, but merely by re-stating the given premisses, in the light of the fact that each is about the *size* of certain items, and states that one item has the size of the other, and some to spare. We can then put the argument in the following form:

All the size that B has, is size that A has; and so is some that B hasn't.

All the size that C has, is size that B has; and so is some that C hasn't.

Therefore, all the size that C has, is size that A has, and so is some that C hasn't.

If, now, we let  $x$  = 'size that C has',  $y$  = 'size that B has', and  $z$  = 'size that A has', we can write the above down as follows:

All Y is Z (a), and some non-Y is Z (b).

All X is Y (c), and some non-X is Y (d).

Therefore all X is Z (e), and some non-X is Z (f).

Here the reasoning from (a) and (c) to (e), and that from (a) and (d) to (f), is plainly syllogistic. The proposition (b), "Some non-Y is Z", is not used, but neither is what it represents in the original—"A is as great as B", with "B is greater than C", would yield the original conclusion just as well as "A is greater than B" would.

I am inclined to think that *any* inference based on the transitivity of relations, where that transitivity is a formal and not merely a material fact, can be treated similarly. "A is the brother of B, B is the brother of C, etc." simply becomes "B's parent is A's parent, C's parent is B's parent, etc.", which is in Barbara with singular premisses. "A is to the right of B, B is to the right of C, etc." is valid only when C, B and A are at successively greater distances to the right of some one point X

(C's distance could be zero), so that the argument may be displayed as an *a fortiori* one—"A's distance-to-the-right-of-X is greater than B's, etc."—and treated accordingly.

I would not maintain that all formally valid reasoning is syllogistic, and would claim for the above reduction only an *indirect* importance. What I am really concerned to dispose of is the view that 'formal transitiveness' is a mysterious property which some relations possess and some do not, and which we must perceive by some sort of intuition before we can infer  $aRc$  from " $aRb$  and  $bRc$ ". I would insist, on the contrary, that the formal transitiveness of a relation  $R$  simply *means* that we can formally infer  $aRc$  from " $aRb$  and  $bRc$ "; and this in turn means that  $aRc$  merely repeats part of what is already said by " $aRb$  and  $bRc$ ", i.e. that " $aRb$  and  $bRc$ " is capable of re-statement as a conjunction in which  $aRc$ , possibly restated also, appears as a conjunct. Now it is not difficult to show that the premisses of a syllogism contain, in this sense of 'contain', its conclusion; and hence the reduction of *a fortiori* arguments to syllogisms is *one* way—there may well be others—of showing that in them also the conclusion merely repeats a part of what is said in the premisses.

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